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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,817	01/05/2004	Kenichi Takahiro	247239US3	1641

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

PATEL, VISHAL A

ART UNIT PAPER NUMBER

3676

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/750,817

Applicant(s)

TAKAHIRO ET AL.

Examiner

Vishal Patel

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MLJ

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/5/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "10b" has been used to designate both "U-shape metal ring" and "coil spring" (see figure 3). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 5 objected to because of the following informalities:

Lines 2-3, "at least one ring-shaped metal base elastic structure" should be changed to --the at least one ring-shaped metal base elastic structure--. This would be the case since the at least one ring-shaped metal base elastic structure is claimed in claim 1.

Line 3, "a trough portion" should be changed to --the trough portion--. This would be the case since a trough portion is claimed in claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Nicholson (US. 5,433,456).

Regarding claim 1: Nicholson discloses a combination gasket (34) formed by fitting a ring-shape metal base elastic structure (28') in at least one trough portion of two trough portions of a ring-shaped metal gasket that has an S-shape longitudinal cross section (36 has trough 38a and 38c to form a S-shape).

Regarding claim 2: The combination metal gasket is formed by fitting a ring-shaped metal base elastic structure (28') in at least one trough portion of three trough portions (38a, 38b and 38c) of a metal gasket that has a substantially E-shape longitudinal cross section (36 has a substantially E-shape).

Regarding claim 4: A seal structure is formed by fitting a combination metal gasket (34) in between two members (two members as showed in figure 6).

Regarding claim 5: The seal structure is a joint specified by American Petroleum Institute having hexagonal or an oval ring-joint groove. The seal structure (as considered in figure 6) on the right of 40 may have fluid to be sealed at high pressure and on the left of 40 no fluid or fluid at lower pressure (since 28' is placed on both sides of the metal gasket 36, the at least one ring-shaped metal base elastic structure is fitted in the trough portion on a low pressure side or non-

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fluid side or a fluid being sealed). The structure is at high temperature (column 1, 10-11, since the combination gasket is used in a high temperature sealing applications).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson in view of Lew et al (US. 4,582,330).

Regarding claim 3 dependent from 2: Nicholson discloses the invention substantially as claimed above but fails to disclose the ring-shaped metal base elastic structure is a ring structure that has a U-shape or V-shape longitudinal cross section. Lew discloses a combination metal gasket (gasket of figure 6) having a ring shape metal base elastic structure (one of 39 and 40) in at least one trough portion (trough holding one of 39 and 40) of two trough portions of a ring shape metal gasket (metal gasket having 38) and the ring-shaped metal base elastic structure is a ring structure that has a U-shape or V-shape longitudinal cross section (39 and 40 have a U-shape or V-shape). Lew also discloses a combination gasket (figure 7) having a ring shape metal base elastic structure (one of 44 and 45, members 44 and 45 are coil springs) in at least one trough portion of two trough portions of a ring shape metal gasket (gasket having 43). It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the ring shaped metal base elastic structure of Nicholson to have U-shape or V-shape

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as taught by Lew, since having a coil spring as an energizer or a U-shape and V-shape rings to be an energizer is considered to be art equivalent (column 4, lines 8-25 of Lew).

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nicholson.

Nicholson discloses the invention substantially as claimed above but fails to disclose that the temperature to be at 200 to 500 degree centigrade. Discovering an optimum range of a result effective variable involves only routine skill in the art. In re Kulling, 895 F.2d 1147, 14 USPQ 2d 1056. Without the showing of some unexpected result. Since applicant has not shown some unexpected result the inclusion of this limitation is considered to be a matter of choice in design. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the temperature be between 200 and 500 degrees as a matter of design choice. Further evidence is shown that in a petroleum industry the drill string are at more than 200 degrees centigrade at about 10000 feet depth or more (column 5, lines 7 of Schpok et al, US. 4,254,839).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Halling, Dunkle and Taylor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is (703) 308-8495. The examiner can normally be reached on Monday through Friday from 7:30 PM to 4:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann, can be reached on (703) 306-4115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. Technology Center 3600 Customer Service is available at 703-308-1113. General Customer Service numbers are at 800-786-9199 or 703-308-9000. Fax Customer Service is available at 703-872-9325.

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Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: 703-872-9326, for formal communications for entry before Final action: or,
703-872-9327, for formal communications for entry after Final action.

Hand-delivered responses should be brought to Crystal Park Five, 2451 Crystal Drive,
Arlington, Virginia, Seventh Floor (Receptionist suite adjacent to the elevator lobby).

VP
July 23, 2004

A handwritten signature in black ink, appearing to read "Vishal Patel". The signature is fluid and cursive, with the first name "Vishal" and last name "Patel" clearly distinguishable.

Vishal Patel
Patent Examiner
Tech. Center 3600